

Title (en)  
INTRAVASCULAR BLOOD PUMP WITH BALLOON

Title (de)  
INTRAVASKULÄRE BLUTPUMPE MIT BALLON

Title (fr)  
POMPE SANGUINE INTRAVASCULAIRE À BALLONNET

Publication  
**EP 3398626 A1 20181107 (EN)**

Application  
**EP 17169581 A 20170504**

Priority  
EP 17169581 A 20170504

Abstract (en)  
An intravascular blood pump (1) comprises a ring seal (10) that is configured to assume a collapsed configuration and an expanded configuration and configured to contact and seal against an inner wall of the patient's blood vessel when inserted therein in the expanded configuration. A support member (12; 13) is disposed inside the ring seal (10) in order to support the ring seal (10) from the inside, wherein the support member (12; 13) is configured to collapse at least partially when a predetermined pressure difference between a proximal area and a distal area of the blood vessel acting on the ring seal (10) is exceeded.

IPC 8 full level  
**A61M 1/12** (2006.01); **A61M 1/10** (2006.01)

CPC (source: CN EP IL KR US)  
**A61M 25/1002** (2013.01 - IL US); **A61M 25/1018** (2013.01 - IL); **A61M 60/13** (2021.01 - CN EP IL KR US);  
**A61M 60/135** (2021.01 - CN EP IL KR US); **A61M 60/148** (2021.01 - IL KR); **A61M 60/17** (2021.01 - IL); **A61M 60/178** (2021.01 - KR);  
**A61M 60/216** (2021.01 - CN IL); **A61M 60/237** (2021.01 - EP IL KR US); **A61M 60/833** (2021.01 - CN EP IL KR US);  
**A61M 60/857** (2021.01 - CN IL); **A61M 60/861** (2021.01 - CN EP IL KR US); **A61M 60/896** (2021.01 - CN EP IL KR US);  
**A61M 2025/1052** (2013.01 - IL US); **A61M 2025/1061** (2013.01 - IL US); **A61M 2025/1084** (2013.01 - IL US); **A61M 2205/0266** (2013.01 - IL US)

Citation (search report)  
• [XA] WO 2014141284 A2 20140918 - MAGENTA MEDICAL LTD [IL]  
• [X] WO 2016207293 A1 20161229 - ABIOMED EUROPE GMBH [DE]  
• [X] EP 3120880 A1 20170125 - BERLIN HEART GMBH [DE], et al

Cited by  
EP3862035A1; US12005248B2; US11368081B2; US11804767B2; US11944805B2; US11754075B2; WO2021156255A1

Designated contracting state (EPC)  
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Designated extension state (EPC)  
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**EP 3398626 A1 20181107; EP 3398626 B1 20210224**; AU 2018262630 A1 20191031; AU 2018262630 B2 20230914;  
AU 2023282202 A1 20240104; CN 110621358 A 20191227; CN 110621358 B 20220701; CN 115227961 A 20221025; DK 3398626 T3 20210322;  
EP 3618885 A1 20200311; ES 2863628 T3 20211011; IL 270057 A 20191231; IL 270057 B1 20230601; IL 270057 B2 20231001;  
IL 302472 A 20230601; JP 2020518402 A 20200625; JP 2022116184 A 20220809; JP 2024056025 A 20240419; JP 7082141 B2 20220607;  
JP 7453276 B2 20240319; KR 102599344 B1 20231108; KR 20200002927 A 20200108; KR 20230156439 A 20231114;  
SG 11201909506W A 20191128; US 11517726 B2 20221206; US 12005208 B2 20240611; US 2020155743 A1 20200521;  
US 2023137664 A1 20230504; WO 2018202776 A1 20181108

DOCDB simple family (application)  
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CN 202210697085 A 20180503; DK 17169581 T 20170504; EP 18720633 A 20180503; EP 2018061350 W 20180503; ES 17169581 T 20170504;  
IL 27005719 A 20191021; IL 30247223 A 20230427; JP 2019560740 A 20180503; JP 2022085716 A 20220526; JP 2024034458 A 20240307;  
KR 20197033891 A 20180503; KR 20237037855 A 20180503; SG 11201909506W A 20180503; US 201816610773 A 20180503;  
US 202217979015 A 20221102